A Staff-Based Needs Assessment of Trauma and Posttraumatic Stress Disorder (PTSD) Services for People with Severe Mental Illness

Final Report to the Family and Social Services Administration,

Indiana Division of Mental Health

Prepared by:

Michelle P. Salyers, Lisa J. Evans, Gary R. Bond, Piper Meyer, and Hillary Berglund

Department of Psychology

Indiana University Purdue University Indianapolis

June 25, 2001

Address correspondence to:

Michelle P. Salyers, Ph.D.
Department of Psychology
LD 124
402 N. Blackford Street
Indianapolis, IN 46202-3275

(317) 274-2904 (tel.)
(317) 274-6756 (FAX)
Email: MPSALYER@IUPUI.EDU

Table of Contents

Executive Summary

Traumatic events are common in the lives of people with severe mental illness (SMI), with estimates of lifetime prevalence of trauma ranging from 85% to 97% (Goodman, Rosenberg, Mueser, & Drake, 1997; Mueser et al., 1998). Posttraumatic stress disorder (PTSD), one of the primary effects of trauma, is also prevalent. Compared to the general population where *lifetime* estimates of PTSD range from 8% to 12% (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), 29% to 43% of people with SMI meet criteria for *current* PTSD (Cascardi, Mueser, DeGiralomo, & Murrin, 1996; Mueser et al., 1998). However, PTSD is not being systematically diagnosed or treated in this population. The purpose of this study was to assess the need for trauma and PTSD services in Indiana and to identify barriers to the diagnosis and treatment of PTSD and other trauma-related problems in people with SMI. **Method**: We conducted a state-wide survey of providers serving people with SMI in community support programs in Indiana, examining knowledge and attitudes related to PTSD and trauma. **Results**: 19 program directors and 251 staff participated, representing 26 of 30 community mental health centers (CMHCs) in Indiana. Attitudes factored into three distinct and reliable groups: *competence/confidence treating trauma/PTSD, beliefs in the utility of intervention*, and *agency support*. The majority of providers did not feel competent to effectively treat PTSD or other trauma-related problems. Competence/confidence and belief in utility of intervention were positively related to the percentage of clients with whom trauma and PTSD had been discussed, documented in charts, and addressed directly in treatment. Belief in utility of intervention also was related to the percentage of clients referred for treatment of these problems. Compared to case managers, therapists scored higher on knowledge items, had more positive attitudes regarding their competence and beliefs in the utility of intervention, and reported a greater percentage of clients with whom they had discussed, documented, and addressed trauma and PTSD directly.

Introduction

Trauma can be generally defined as an uncontrollable event that threatens the person's physical integrity (Herman, 1992). In the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), the American Psychiatric Association (APA, 1994) adopts a narrower set of criteria. Trauma is defined as an extreme stressor that involves two criteria: 1) actual or threatened death or serious injury, or threat to physical integrity, and 2) a personal response to the event of intense fear, helplessness, or horror. Examples of trauma include military combat, violent interpersonal assault, being kidnapped or held hostage, natural or manmade disasters, severe automobile accidents, or sexual assault. Understanding the effects of trauma and developing effective treatments has been a recent national focus, as evidenced by a position statement issued by National Association of Mental Health Program Directors (NASMHPD, 1998) as well as the SAMSHA Women, Co-Occurring Disorders, and Violence project. This emphasis represents a growing recognition of the extent and significance of traumatic experiences, particularly in vulnerable populations, such as adults with severe mental illness (SMI).

Estimates of exposure to trauma vary widely, depending on the population sampled and the measures used. An often cited source on the prevalence of trauma in the general population is the National Comorbidity Survey, in which 61% of men and 51% of women reported experiencing at least one traumatic event in their lives (Kessler et al., 1995). Rates are generally much higher in the SMI population. In a recent study examining many types of trauma in people with SMI, 98% of participants reported at least one type of traumatic event in their lives (Mueser et al., 1998). The most common experiences reported in this sample included: adult sexual assault (47%), childhood sexual assault (45%), accidents (43%), and the experience of having

been attacked with a weapon (42%). Other studies have also shown high rates of interpersonal violence experienced by people with SMI. In a review of studies examining the prevalence of physical and sexual assault among women with SMI, Goodman et al. (1997) found 51-97% of women reported sexual and/or physical assault during their lifetime. In addition to lifetime experiences, recent exposure to interpersonal violence is frequent in people with SMI. For example, in a large, multi-site sample of clients with SMI, approximately one-third of men and women reported physical and/or sexual assault in the past year (Goodman et al., in press).

Exposure to trauma is thought to have diffuse effects and has been associated with a wide range of difficulties in the general population, as well as in people with SMI. Reviews of the impact of trauma have found relationships with a variety of psychiatric disturbances, particularly depressive and anxiety disorders (Brown, Fulton, Wilkeson, & Petty, 2000) substance abuse (Najavits, Weiss, & Shaw, 1997), physical health problems (Friedman & Schnurr, 1995), mental and physical health service utilization (Hidalgo & Davidson, 2000), and suicidal behavior (Adams & Lehnert, 1997) in the general population. Although the majority of studies have found negative correlates of trauma, the impact may not be universally detrimental. For example, recent meta-analyses have found stronger relationships between trauma and current problems (e.g., symptoms) in clinical samples, than in community or college samples (Jumper, 1995; Neumann, Houskamp, Pollock, & Briere, 1996; Rind & Tromovitch, 1997; Rind, Tromovitch, & Bauserman, 1998). Thus, trauma may be particularly problematic for people with SMI. Reviews of trauma in people with SMI support this view (Goodman, Dutton, & Harris, 1997; Mueser, Rosenberg, Goodman, & Trumbetta, in press; Rosenberg, Drake, & Mueser, 1996), paralleling the findings described above.

One of the primary effects of trauma is posttraumatic stress disorder (PTSD). PTSD is an often disabling condition comprised of reexperiencing symptoms (e.g., nightmares, intrusive memories), avoidance of trauma-related stimuli (e.g., not discussing trauma, social withdrawal), and increased arousal (e.g., hypervigilance, sleep disturbance) (APA, 1994). Compared to the general population where lifetime estimates of PTSD range from 8-12% (Breslau, Davis, Andreski, & Peterson, 1991; Kessler et al., 1995; Resnick, Kilpatrick, Dansky, Saunders, & et al., 1993), studies of people with SMI have found that 29-43% currently meet criteria for PTSD (Cascardi et al., 1996; Craine, Henson, Colliver, & MacLean, 1988; Mueser et al., 1998; Mueser et al., 2001; Switzer et al., 1999). However, PTSD is not being systematically diagnosed or treated in this population. For example, Mueser et al. (1998) found that of the 43% of clients who met criteria for PTSD in their study, only 2% actually had the diagnosis listed in their charts.

The reasons for this underreporting are not known. It may be that staff lack awareness of PTSD or lack specific knowledge about symptoms needed to diagnose PTSD. Alternatively, staff may have the requisite knowledge, but lack resources to adequately address the PTSD and other effects of trauma. Underdiagnosis may reflect a concern that talking about these issues may be detrimental to clients who already have disabling conditions. Conversely, staff may be uncomfortable talking about traumatic events. Finally, it may be that the primary SMI problems are so pressing, that a diagnosis of PTSD may seem superfluous to clinicians. Anecdotally, we have heard several of these possible explanations, but no research has been done to sort these out.

An assessment of staff attitudes and knowledge could help identify the most likely reasons for underreporting and lack of treatment and could point to possible interventions. For

example, lack of knowledge may suggest the need for educational materials and training (e.g., inservice presentations, videos, brochures). Similarly, if resources are scarce, manualized treatments and assessment instruments may be provided. Clinical concerns about the difficulty of talking about trauma may lead to training clinicians on how to address trauma in sensitive ways and providing additional support to staff who are helping clients with very difficult issues.

Objective

The objective of this project was to conduct an assessment of the need for trauma and PTSD services in Community Mental Health Center (CMHC) programs serving people with SMI in Indiana. We examined staff knowledge and attitudes about trauma and PTSD as well as the perceived need for treatment and barriers to such treatment.

Methods

Setting and Participants

Program directors and staff of CMHCs in Indiana serving individuals with SMI were invited to participate. Thus, we focused on Community Support Programs (CSPs), including partial hospitalization, case management, and residential services. We initially contacted each CSP director with a letter describing the study (mailed in August, 2000). We then followed the letter with a phone call to the CSP director to further describe the study and ask for their participation.

We were able to make phone contact with 21 of the 30 CSP program directors. Of these, 100% agreed to participate. During the phone call, we offered to visit the CMHC so that we could directly distribute surveys to staff. A total of 5 directors requested a site visit. The remaining 16 directors asked us to mail the surveys and they distributed the surveys to staff. We

supplied stamped, self-addressed envelopes for surveys to be returned directly to the research team.

There were 9 program directors that we had difficulty reaching by phone. For these centers, we sent another letter requesting participation and enclosed a director survey and 15 staff surveys along with stamped, self-addressed envelopes. Of these centers, 5 of the centers had either staff or the program director return completed surveys. Thus, a total of 26 of the 30 CMHCs in Indiana were represented in the current study.

We followed-up with each center that participated by sending a thank-you letter and a packet of information including web-sites and reading lists for trauma and PTSD. We also enclosed copies of 4 articles pertaining to trauma and PTSD in adults with SMI.

Measures

We created two surveys specifically for this project. The program director was asked to complete a brief survey describing staff training offered by the agency for trauma and PTSD in the past 12 months, and the availability of treatments for PTSD and other trauma-related problems for clients with SMI. Directors were asked if they would be interested in resources about trauma and PTSD, including in-service training, an organized conference, written materials, or assessment materials for trauma and PTSD. Directors also were asked open–ended questions to identify perceived barriers to treating PTSD and other trauma-related problems in this population and to describe agency needs in terms of client treatment, staff training, and clinical research. The director survey took 5-10 minutes to complete. See the Appendix for a copy of the director survey used.

The staff survey assessed demographics, current caseload size, and estimates of the number of clients who had: 1) a history of trauma, 2) discussed trauma with the clinician, 3)

documented trauma history in charts, 4) addressed trauma in treatment, and 5) been referred for treatment. The same categories were asked with regard to PTSD. The survey included 8 items to assess knowledge of trauma/PTSD, and 27 items to assess attitudes related to trauma/PTSD. Items were rated on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. We included open-ended questions for staff to identify the most common traumatic events that clients have experienced, the greatest barriers to treating PTSD and other trauma-related problems, and if they were treating PTSD/trauma in this population, to describe what kinds of interventions they were using. Staff also were asked if they would be interested in resources about trauma and PTSD, including in-service training, an organized conference, written materials, or assessment materials. The staff survey took approximately 15 minutes to complete. See the Appendix for a copy of the staff survey used.

Data Analyses

We examined director and staff responses separately. For director surveys, we report the number and percentage of directors responding positively to the items. We also report the frequency of responses for the open-ended questions. For staff surveys, we examined demographics and report frequencies for different categories, and mean (SD) for continuous variables (e.g., age). For open-ended questions, two independent raters categorized responses. We examined inter-rater agreement, reporting both percentage agreement and the statistic kappa, which accounts for chance agreement between raters. Frequency of responses for the open-ended questions were then based on consensus ratings between the two raters. We examined the percentage correct on the knowledge items and the percentage of providers endorsing each of the attitude items. Attitudes were then factor analyzed using principal components analysis with varimax rotation. Next we examined the relationships between knowledge and attitudes and the

estimates of reporting and treating trauma/PTSD with Pearson correlations. Finally, we examined staff role in relation to predicting the estimates of reporting and treating trauma/PTSD. Thus, we compared case managers and therapists using t tests on reporting variables. We also compared the two groups on attitudes, knowledge, and experience.

Results

Director Survey

Sample description. A total of 19 CSP directors completed the director survey. Directors had been in their current position for an average of 11 years, ranging from 1 to 27 years.

Training issues. Issues related to training staff in areas of trauma and PTSD are shown in Table 1. Just over half (53%) of the program directors reported that their agency had offered staff training regarding trauma in the past year. Of those that offered training, child abuse was the most common topic (70%), followed by domestic violence (50%). Several directors (39%) also reported that their agency had offered training regarding PTSD in the last year.

Treatment issues. As shown in Table 2, the majority of directors (58%) reported that their agency offers treatment for PTSD. Of those that offer PTSD treatment, 91% reported that clients with SMI were eligible to participate, and 64% reported that clients with SMI actually had participated in such treatment in the past year. Several directors reported that their agencies have trauma-related treatments (68%) such as domestic violence groups. Again, the majority of these treatments (79%) are open to people with SMI, and 58% of directors reported that clients with SMI had participated in those treatments in the past year. Intake assessments generally addressed several areas related to trauma, including history of childhood abuse (89%), adulthood assault (89%), and substance abuse (100%). Fewer reported assessment of community violence (56%), and only 39% reported assessment of PTSD symptoms at intake.

Resource needs are shown in Table 3. The vast majority (95%) would be interested in hosting an in-service training about trauma, PTSD, and SMI. Many (74%) also reported an interest in attending a day-long conference on these topics in Indianapolis, estimating that an average of 9 staff per center might attend. Directors also reported an interest in receiving written materials (90%) and assessment materials (95%) on these topics.

Resource needs were also obtained through open-ended questions. Directors were asked to report the most pressing needs in three areas: client treatment, staff training, and clinical research. Client treatment needs are shown in Table 4. Many directors (47%) reported that staff expertise issues are the most pressing, including general expertise, dual-diagnosis, personality disorders, PTSD, and domestic violence. Several (26%) reported a need for specific services, including residential placement options and case management/rehabilitative services. Specific resources were mentioned by 21%, including the need for more staff, space, money, and transportation access. In addition, 16% reported the need to balance paperwork and treatment as most pressing.

The most pressing needs regarding staff training are shown in Table 5. Several different clinical content areas were brought forth, with the most common topic being PTSD assessment and/or intervention, and helping staff maintain a better understanding of client illness. Another commonly mentioned topic was the retention of trained staff/preventing staff burnout.

Several program directors (37%) reported an interest in participating in clinical research, and an additional 32% were not sure about participating. For those who expressed an area of research interest (n=9), most reported an interest in trauma/PTSD (89%), case management (78%), or vocational issues (67%). When asked about the agency's most pressing needs in the area of research, several mentioned specific content areas including PTSD, dual diagnosis

treatment, borderline personality disorder, and dialectical behavior therapy. General issues such as outcomes research, research methods, and time to participate in research also were mentioned.

Staff Survey

Sample description. A total of 271 staff completed the survey. However, several staff were not serving many clients with SMI. Because the survey focused on issues of trauma in clients with SMI, we restricted the sample to staff who reported a caseload of at least 5 clients with SMI (n=251). Demographics of the 251 staff who met this criterion are shown in Table 6. The majority of participants were female (70%), Caucasian (92%), and currently married (54%). The average age of participants was 39 years. The educational breakdown of the sample included predominantly those with a bachelor's degree (58%) or a master's degree (30%). The most common area of training was social work (41%), followed by psychology (35%). Staff had been in their current position an average of 45 months, with half the sample having been in their position at least 26 months. The average time in the mental health field was approximately 9 years, with half the sample having been in the field for at least 6 years. The average caseload size was 29, with a mean of 24 clients with SMI.

Reports of trauma and PTSD. As shown in Table 7, staff reported an average of 55% of their SMI clients had experienced trauma. On average, staff estimated discussing trauma with 68% of clients with a history of trauma, and that trauma was documented in charts for 79% of clients with trauma. However, of those clients with a trauma history, staff estimated working with 55% directly and referring 25% for treatment of problems related to trauma. On average, staff estimated that 27% of their clients with SMI might also meet criteria for PTSD. Of those clients, staff reported discussing PTSD with 69%, and that PTSD was documented in charts for

53% of clients with PTSD. Staff reported having addressed PTSD directly in treatment with 61% of those who have PTSD and referring 27% for PTSD treatment.

The most common types of trauma are shown in Table 8. Staff responded to an open-ended question to identify the most common types of trauma experienced by their clients. These responses were then categorized by two independent raters. Overall the raters had good agreement, with percentage agreement across categories of trauma types ranging from 90% to 99% (kappas ranged from .60 - .97). Sexual abuse/assault during adulthood (or age unspecified) was the most common trauma reported with 76% of staff reporting this as a common type of trauma experienced by their clients. The second most common type was physical abuse/assault (47%). In general, types of interpersonal violence were the most frequently nominated. Issues related to SMI were rarely nominated: 5% reported psychiatric hospitalization or treatment as traumatic, and 2% nominated suicide attempts or other self-inflicted injuries as common types of trauma.

Types of intervention. Interventions used for PTSD and other trauma-related problems are shown in Table 9. Overall the raters who coded staff responses had acceptable agreement, with percentage agreement across categories of intervention ranging from 84% to 99% (kappas ranged from .43 - .95). Notably, 140 (56%) staff responded to the open-ended question "If you are treating PTSD or other trauma-related problems, what kinds of interventions are you using to address these needs with your clients?" Of the staff who responded, the most frequently nominated interventions were supportive techniques (39%), including responses such as "encourage discussion" or "acknowledge feelings." Several (32%) reported cognitive behavioral therapy (CBT) or specific techniques such as relaxation, desensitization, or cognitive reframing. Symptom management and focusing on coping strategies was reported by 21%. Although some

of these activities may include CBT strategies, this category was used for more general responses such as “teach coping strategies” or “discuss symptoms and alternative ways to cope.” Several staff reported referring clients to others for treatment (16%), and several (16%) nominated nonspecific therapies (e.g., “individual therapy”).

Barriers to treating PTSD and other trauma-related problems. Barriers were assessed through an open-ended question (“What do you think are the greatest barriers to treating PTSD and other-trauma-related problems in people with SMI?”). Overall the raters had acceptable agreement, with percentage agreement across categories of barriers ranging from 83% to 99% (kappas ranged from .46 - .80). 204 (81.3%) staff responded to the open-ended question (see Table 10). Four of the five most commonly reported barriers were client-related: SMI symptoms interfere (29%); clients are unwilling to discuss (20%); cognitive impairment (14%) or other general reason that clients cannot communicate symptoms or events (9%). In terms of staff-related barriers, lack of knowledge or experience was frequently identified (18%). Other staff-related barriers we had expected were not frequently identified. For example, few (7%) suggested that trauma/PTSD are less important than other problems, that discussing these issues might make clients worse (5%), that staff are uncomfortable discussing trauma (5%), or that staff do not have the resources (e.g., assessment tools) to address trauma and PTSD (5%). In addition to the open-ended question to identify barriers, we examined knowledge and attitudes as potential barriers through structured questions.

Knowledge of trauma and PTSD. Knowledge was assessed by items shown in Table 11. The individual items appeared to have good variability, without many floor or ceiling effects. That is, there were no items in which almost all respondents answered it incorrectly and only one

item in which the vast majority (89%) answered the question correctly. Overall, staff averaged 70% correct on the knowledge items.

Staff attitude items. Attitude items were factor analyzed to determine if reliable constructs could be identified from individual items. As shown in Table 12, 4 factors were extracted from the individual items. The first factor, *competence-confidence treating trauma/PTSD*, consisted of 10 items, accounted for 24% of the variance in items, and was internally consistent with Cronbach's alpha of .89. Factor 2, *beliefs in the utility of intervention*, consisted of 4 items, accounted for an additional 13% of the variance, and was internally consistent (alpha = .79). Factor 3, *agency support*, consisted of 3 items, accounted for 8% of the variance, and was internally consistent (alpha = .74). Factor 4, *external limitations*, also consisted of 3 items, and accounted for 6% of the variance. However, because of the low internal consistency (alpha = .31), Factor 4 was not included in the remainder of the analyses.

Responses to individual attitude items are shown in Table 13. In terms of *competence-confidence treating trauma/PTSD*, many staff reported comfort with their overall knowledge and ability to ask about trauma histories and detect symptoms of PTSD. On the other hand, more than half of the staff responded negatively or neutrally to these same items, suggesting a large number of staff could benefit from training in general issues related to assessment of trauma and PTSD. Similarly, less than a third felt comfortable with knowledge of effective treatments for PTSD or other trauma-related problems. Regarding *beliefs in the utility of intervention*, most staff reported that their clients would benefit from treatments both for PTSD as well as other trauma-related problems. At the same time, 32% also endorsed the belief that other needs are more pressing than trauma for this population. Less than a third of staff reported *agency support*

for trauma/PTSD including training and having assessment instruments available. Almost all staff reported that more training opportunities would be useful.

Predictors of reporting and treating trauma/PTSD. We examined correlates of staff reports of prevalence of trauma and PTSD and the proportion of clients with whom staff have discussed, documented, treated, or referred for treatment of PTSD and other trauma-related problems. First we identified variables that might be related to these reports (knowledge, attitudes as summarized by the factors described above, and experience, both in terms of time in their current position as well as time in the mental health field). The relationships among these predictor variables is shown in Table 14. As expected, there were moderate correlations between predictors. For example, staff who scored higher on the knowledge items also were likely to endorse attitudes of competence/confidence in treating trauma and PTSD, believed interventions would be useful, and had more experience in their current job and in the mental health field. However, predictor variables were not so highly correlated as to indicate multicolinearity (i.e., that the different predictors might really be measuring the same thing).

Table 15 displays the correlations between knowledge, attitudes, experience, and the reporting and treating of PTSD and other trauma-related problems. Overall, *competence/confidence* was the most consistent predictor. This factor was positively related to estimated prevalence, and having discussed, documented, worked on trauma as well as PTSD. However, com*petence/confidence* was unrelated to referring for treatment of either trauma or PTSD. *Beliefs in the utility of intervention* also were predictive, with positive relationships with each of the categories for trauma (estimated prevalence, and having discussed, documented, worked on, and referred for treatment). In terms of PTSD variables, *beliefs in the utility of intervention* was only related to the proportion of clients with PTSD and having worked on

PTSD directly or referred for treatment. Experience in the mental health field also was a positive predictor of several items.

In addition to knowledge, attitudes, and experience, we also explored the staff role in relation to reporting and treating PTSD and trauma-related problems. The two most frequently identified staff roles in this sample were case managers (n=137) and therapists (n=52). As shown in Table 16, therapists differed significantly from case managers on the majority of items examined. Therapists scored higher on the knowledge items and had more positive attitudes regarding their own *competence/confidence* and *beliefs in the utility of intervention*. The two groups did not differ in ratings of *agency support*. Therapists reported greater prevalence of trauma among their clients and having discussed, documented, and treated trauma-related problems directly. Therapists were less likely to report having referred clients for trauma treatment. In terms of PTSD, therapists were more likely to report having discussed, documented, and worked on PTSD directly. They did not differ from case managers in the estimated prevalence of PTSD or in the number of clients they have referred for PTSD treatment.

Discussion

This staff-based needs assessment represents the first step in identifying the need for trauma and PTSD services for adults with SMI in Indiana, as well as potential barriers to providing such services. We surveyed both staff and program directors from CSP programs across the state. Overall, we had a fairly high response rate, with 26 of the 30 CMHCs represented in this survey.

Staff reported that half of their clients had been exposed to traumatic events, well below the estimate in studies that have directly assessed trauma in adults with SMI. Those studies show 88%-98% of SMI clients report at least one type of traumatic event in their lives (Goodman

et al., in press; Mueser et al., 1998). Although overall rates of staff-reported trauma are likely underestimates, the types of trauma that staff nominated as most common are representative of those found in the literature. That is, interpersonal violence tends to be the most commonly reported type of trauma experienced by clients with SMI (Mueser et al., 1998). Given the particularly negative correlates of interpersonal violence (Goodman et al., in press), high rates of this type of trauma represent a severe problem.

Staff estimates of the prevalence of PTSD are closer to estimates in the existing literature. Staff estimated that 27% of their clients with SMI would also currently meet criteria for PTSD, which is close to the 29% - 43% range diagnosed in direct assessment of adults with SMI (Cascardi et al., 1996; Craine et al., 1988; Mueser et al., 1998; Mueser et al., 2001; Switzer et al., 1999). However, the literature suggests that the majority of clients with SMI and PTSD *do not* have PTSD documented in charts (e.g., 98% in Mueser et al., 1998). In contrast, staff in this sample estimated that of those clients meeting criteria for PTSD, 69% have PTSD documented in their charts. Direct assessment of clients along with a chart review would be necessary to sort out these discrepancies.

In terms of barriers to diagnosing and treating PTSD and other trauma-related problems, not surprisingly, staff tended to identify client factors such as the interference of SMI symptoms or client discomfort and avoidance. Of potential staff-related factors, they did identify lack of knowledge and experience in the open-ended question. This lack of competence and comfort also emerged in the attitudinal questions. Moreover, the *competence/confidence treating trauma/PTSD* factor was the most consistent predictor of estimated prevalence, and having discussed, documented, and worked on trauma as well as PTSD. Thus, lack of staff knowledge

and confidence in their ability appear to be strong barriers in identifying and treating PTSD and other trauma-related problems.

Although several program directors reported that their agency offered training regarding trauma and PTSD in the past year, the majority of staff reported that agencies were not providing training opportunities in these areas. In addition, almost all staff reported an interest in having in-service training and reported that they would like to attend a day-long conference on trauma and PTSD in people with SMI. Taken together, these findings suggest that a large number of staff could benefit from training related to assessment of trauma and PTSD as well as training in which treatments are most effective for addressing PTSD and other trauma-related problems. In terms of assessment, training may focus on distinguishing PTSD symptoms from other SMI symptoms and on methods to minimize client discomfort, two barriers frequently identified by staff. In terms of intervention, training might focus on cognitive behavioral interventions that been found to be effective in the treatment of PTSD in general (non-SMI) populations (Foa, Keane, & Friedman, 2000). However, research is just beginning to address the generalizability of these approaches for people with SMI (Rosenberg et al., in progress).

Contrary to expectations, providers did not appear concerned that discussing trauma and PTSD may be ineffective, or even detrimental, to clients with SMI. Instead, many reported that interventions for PTSD and other trauma-related problems would be helpful. However, a third also endorsed the belief that other needs are more pressing than trauma for this population. Indeed, clients with SMI often do have important issues such as symptom exacerbation, substance abuse, or housing instability that need to be addressed. Because of these other needs, it is understandable that trauma and PTSD are often not the focus of intervention. However, Mueser and colleagues (in press) have proposed a model describing ways in which PTSD may

affect the course of illness and treatment utilization in people with SMI. They postulate that symptoms of PTSD (re-experiencing the trauma, avoidance of trauma-related stimuli, and increased arousal) could worsen primary symptoms of SMI, leading to decreased functioning and increased service utilization. Indirectly, PTSD could impact course of illness through increased substance abuse, difficulties establishing a good working alliance, or through increased exposure to subsequent trauma. Thus, trauma and PTSD could be important targets of intervention, with broad ramifications, for adults with SMI.

In addition to *competence/confidence treating trauma/PTSD*, and *beliefs in the utility of intervention*, the role of staff members also was related to the likelihood that trauma and PTSD were identified and addressed. Not surprisingly, therapists were more likely than case managers to report higher prevalence of trauma and to discuss, document, and directly address trauma and PTSD in treatment. In addition, case managers reported referring less than a third of clients with trauma history or with PTSD. Thus, clients with SMI who are receiving case management services are not likely to be receiving direct intervention with PTSD and other trauma-related problems.

Some limitations of the current study should be acknowledged. As with any survey, we would expect a tendency towards positive reporting. For example, this positive bias may explain the very high rates of estimated PTSD documented in client charts or the number of staff who would like to attend a conference in trauma and PTSD. Although we did word some items negatively, and asked open-ended questions as well, we still would expect some positive response bias. In terms of predicting trauma/PTSD reports, it would be ideal to have independent sources of these estimates (e.g., chart review, collateral client reports). Even without these independent sources, there were some differential patterns of predictors that

suggest that method variance (i.e., using the same questionnaire for independent and dependent variables) does not account for all of the positive relationships identified in this study.

This study is also limited in terms of generalizability. We attempted to reach each of the CMHCs in Indiana. Although we had pretty good response rates overall, there were still a large number of staff not included in this report. In addition, the sample we did obtain was not randomly selected. Thus, there may be some biases inherent in those who chose to respond to this survey.

Summary

Overall, the best predictors of the percentage of clients with whom trauma and PTSD had been discussed, documented, or worked on directly in treatment were perceived competence/confidence and the belief that intervention would be useful. These findings, taken together with the lack of current training opportunities, suggest the need for educational approaches that would address perceived competence, skills and knowledge, as well as convey the value and importance of addressing PTSD and other trauma-related problems in people with SMI.

This assessment from the perspective of providers is an important first step in documenting service and training needs in a new and growing area of concern. In addition to staff, clients should also be assessed for a thorough understanding of trauma needs. Although evidence for high rates of trauma in people with SMI is strong, only a few studies have examined PTSD specifically (Cascardi et al., 1996; Craine et al., 1988; Mueser et al., 1998; Mueser et al., 2001; Switzer et al., 1999). Further replications of the prevalence of PTSD in the SMI population are sorely needed. An assessment of client knowledge and attitudes also is critical to our understanding of underreporting and our ability to develop more sensitive interventions. For

example, are clients unwilling to talk about these issues, or is it that no one has asked about trauma? Do clients understand how trauma may affect their lives? Do they recognize symptoms of PTSD and know that these symptoms are treatable? Thus, the next step is to examine the client perspective. By having multiple perspectives, we will better be able to develop more effective interventions that will be more readily utilized. If providers and consumers of mental health services do not believe there is a need or value in treatment, even effective interventions will not be used in clinical practice.

References

Adams, D. M., & Lehnert, K. L. (1997). Prolonged trauma and subsequent suicidal behavior: Child abuse and combat trauma reviewed. Journal of Traumatic Stress, 10(4), 619-634.

APA. (1994). Diagnostic and statistical manual of mental disorders (DSM-IV) (Fourth Edition - Revised ed.). Washington, DC: American Psychiatric Association.

Breslau, N., Davis, G. C., Andreski, P., & Peterson, E. (1991). Traumatic events and posttraumatic stress disorder in an urban population of young adults. Archives of General Psychiatry, 48(3), 216-222.

Brown, E. S., Fulton, M. K., Wilkeson, A., & Petty, F. (2000). The psychiatric sequelae of civilian trauma. Comprehensive Psychiatry, 41(1), 19-23.

Cascardi, M., Mueser, K. T., DeGiralomo, J., & Murrin, M. (1996). Physical aggression against psychiatric inpatients by family members and partners. Psychiatric Services, 47(5), 531-533.

Craine, L. S., Henson, C. E., Colliver, J. A., & MacLean, D. G. (1988). Prevalence of a history of sexual abuse among female psychiatric patients in a state hospital system. Hospital and Community Psychiatry, 39(3), 300-304.

Foa, E. B., Keane, T. M., & Friedman, M. J. (Eds.). (2000). Effective treatments for PTSD: Guidelines from the International Society for Traumatic Stress Studies. New York, NY: Guilford.

Friedman, M. J., & Schnurr, P. P. (1995). The relationship between trauma, post-traumatic stress disorder, and physical health. In M. J. Friedman & D. S. Charney & e. al. (Eds.), Neurobiological and clinical consequences of stress: From normal adaptation to post traumatic stress disorder (pp. 507-524). Philadelphia, PA: Lippincott Raven.

Goodman, L. A., Dutton, M. A., & Harris, M. (1997). The relationship between violence dimensions and symptom severity among homeless, mentally ill women. Journal of traumatic Stress, 10(1), 51-69.

Goodman, L. A., Rosenberg, S. D., Mueser, K. T., & Drake, R. E. (1997). Physical and sexual assault history in women with serious mental illness: Prevalence, correlates, treatment, and future research directions. Schizophrenia Bulletin, 23(4), 685-696.

Goodman, L. A., Salyers, M. P., Mueser, K. T., Rosenberg, S. D., Swartz, M., Essock, S. M., Butterfield, M. I., & Committee, t. S. H. a. R. S. R. (in press). Recent victimization in women and men with severe mental illness: Prevalence and correlates. Journal of Traumatic Stress.

Herman, J. (1992). Trauma and Recovery. New York, NY: Basic Books.

Hidalgo, R. B., & Davidson, J. R. T. (2000). Posttraumatic stress disorder: Epidemiology and health-related considerations. Journal of Clinical Psychiatry, 61(Suppl7), 5-13.

Jumper, S. A. (1995). A meta-analysis of the relationship of child sexual abuse to adult psychological adjustment. Child Abuse and Neglect, 19(6), 715-728.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. Archives of General Psychiatry, 52, 1048-1060.

Mueser, K. T., Goodman, L. B., Trumbetta, S. L., Rosenberg, S. D., Osher, F. C., Vidaver, R., Auciello, P., & Foy, D. W. (1998). Trauma and posttraumatic stress disorder in severe mental illness. Journal of Consulting and Clinical Psychology, 66(3), 493-499.

Mueser, K. T., Rosenberg, S. D., Goodman, L. A., & Trumbetta, S. L. (in press). Trauma, PTSD, and the course of severe mental illness: A heuristic model. Schizophrenia Research.

Mueser, K. T., Salyers, M. P., Rosenberg, S. D., Ford, J. D., Fox, L., & Auciello, P. (2001). A psychometric evaluation of trauma and PTSD assessments in persons with severe mental illness. Psychological Assessment, 13, 110-117.

Najavits, L. M., Weiss, R. D., & Shaw, S. R. (1997). The link between substance abuse and posttraumatic stress disorder in women: A research review. American Journal on Addictions, 6(4), 273-283.

Neumann, D. A., Houskamp, B. M., Pollock, V. E., & Briere, J. (1996). The long-term sequelae of childhood sexual abuse in women: A meta-analytic review. Child Maltreatment: Journal of the American Professional Society on the Abuse of Children, 1(1), 6-16.

Resnick, H. S., Kilpatrick, D. G., Dansky, B. S., Saunders, B. E., & et al. (1993). Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. Journal of Consulting and Clinical Psychology, 61(6), 984-991.

Rind, B., & Tromovitch, P. (1997). A meta-analytic review of findings from national samples on psychological correlates of child sexual abuse. Journal of Sex Research, 34(3), 237-255.

Rind, B., Tromovitch, P., & Bauserman, R. (1998). A meta-analytic examination of assumed properties of child sexual abuse using college samples. Psychological Bulletin, 124(1), 22-53.

Rosenberg, S., Mueser, K. T., Friedman, M., Salyers, M., Glynn, S., R., Z., McHugo, G., Descamps, M., Jankowski, K., & Goguen, C. (in progress). Treatment of postraumatic stress disorderin women with severe mental illness: Pilot proposal.

Rosenberg, S. D., Drake, R. E., & Mueser, K. (1996). New directions for treatment research on sequelae of sexual abuse in persons with severe mental illness. Community Mental Health Journal, 32(4), 387-400.

Switzer, G. E., Dew, M. A., Thompson, K., Goycoolea, J. M., Derricott, T., & Mullins, S. D. (1999). Posttraumatic stress disorder and service utilization among urban mental health center clients. Journal of Traumatic Stress, 12(1), 25-39.

Table 1. Program Director Report of Training in Trauma and PTSD (N=19)	
Item	**# (%) Responding Positively**
In the past 12 months, agency offered staff training about trauma (e.g., effects of traumatic events, treatment for problems related to trauma)	10 (52.6%)
For those offering training (N=10), types of trauma covered:	
Child abuse	7 (70.0%)
Domestic violence (e.g., spouse/partner)	5 (50.0%)
Community violence	3 (30.0%)
Rape/sexual assault	3 (30.0%)
Disasters (natural or manmade)	3 (30.0%)
Other traumatic events	5 (50.0%)
In the past 12 months, agency offered staff training about posttraumatic stress disorder (PTSD) (N=18)	7 (38.9%)
	1 (5.6%) Don't Know

Table 2. Program Director Report of Treatment of Trauma and PTSD (N=19)	
Item	**# (%) Responding Positively**
Agency offers treatment specifically for PTSD	11 (57.9%)
For those offering PTSD treatment (N=11), people with SMI are eligible to participate	10 (90.9%)
For those offering PTSD treatment (N=11), clients with SMI have participated in the past 12 months	7 (63.6%) 1 (9.1%) Don't Know
Agency offers other trauma-related treatments (e.g., DBT program, domestic violence group)	13 (68.4%) 1 (5.3%) Don't Know
For those offering other trauma-related treatment (N=13), people with SMI are eligible to participate	11 (78.6%) 1 (7.1%) Don't Know
For those offering other trauma-related treatment (N=13), clients with SMI have participated in the past 12 months	7 (58.3%) 4 (33.3%) Don't Know
Intake assessment includes the following (N=18):	
History of child sexual/physical abuse	16 (88.9%)
History of adult sexual/physical assault	16 (88.9%)
History of other stressful life events	14 (77.8%)
Current domestic violence	12 (66.7%)
Current community violence	10 (55.6%)
Past substance abuse	17 (94.4%)
Current substance abuse	18 (100%)
HIV risk behaviors	14 (77.8%)
PTSD symptoms	7 (38.9%)
Relationship difficulties	18 (100%)

Table 3. Program Director Reported Interest in Resources (N=19)	
Item	**# (%) Responding Positively**
Interested in having an inservice training for staff on trauma, PTSD and people with SMI	18 (94.7%)
Interested in attending a day-long conference (in Indianapolis) with experts on trauma and PTSD in the SMI population?	14 (73.7%)
Mean (SD) number of staff from each center likely to attend such a conference (N=17)	8.9 (8.2), range 0 to 30
Interested in receiving written material (e.g., journal articles, reviews) on trauma and PTSD	17 (89.5%) 1 (5.3%) Don't Know
Interested in receiving assessment materials for trauma and PTSD	18 (94.7%)

Table 4. Agency's Most Pressing Needs Regarding Client Treatment According to Program Director (N=19)	
Category	**Response Frequency**
Staff Expertise	(9)
General	3
Dual-diagnosis	2
Personality disorders	2
PTSD	1
Domestic violence	1
Specific Services	(5)
Placement options for clients (e.g., residential, group homes)	3
Case management/ rehabilitation services	2
Resources	(4)
More staff	1
More space	1
Financial	1
Transportation	1
Balance between paperwork and treatment	3
Note: Participants responded to an open-ended question: "What are the angency's most pressing needs regarding client treatment?" Responses were then coded and tallied.	

Table 5. Agency's Most Pressing Needs Regarding Staff Training According to Program Director (N=19)	
Category	**Response Frequency**
Clinical content needs:	
PTSD assessment/intervention	4
Better understanding of illness and treatment needed/providing the right treatment	3
Staff communication with clients	1
Current research and treatment information	1
Client empowerment	1
Physical health	1
Assertive case management	1
Violence	1
More training (content not specified)	1
Administrative needs:	
Retention of trained staff/ preventing burn-out	3
Balance between paperwork and treatment	1
Money for training	1
Time for training	1
Note: Participants responded to an open-ended question: "What are the agency's most pressing needs regarding staff training?" Responses were then coded and tallied.	

Table 6. Demographics of Staff Respondents	
	N (%)
Gender	
Male	75 (29.9%)
Female	176 (70.1%)
Ethnicity	
African American/Black	13 (5.3%)
American Indian/Native American	2 (0.8%)
Asian/Pacific Islander	3 (1.2%)
Caucasian/White	226 (91.5%)
Hispanic/Latino/Latina	1 (0.4%)
Other	2 (0.8%)
Marital Status	
Single	65 (26.0%)
Married	136 (54.4%)
Divorced, Widowed, or Separated	49 (19.6%)
Education	
High school/GED	3 (1.2%)
Some College	10 (4.0%)
Associates Degree	8 (3.2%)
Nursing Diploma	4 (1.6%)
Bachelor's Degree	144 (57.6%)
Master's Degree	75 (30.0%)
Doctoral Degree	6 (2.4%)
Area of Training	
Social Work	100 (40.7%)
Sociology	15 (6.1%)
Nursing	12 (4.9%)
Psychology	86 (35.0%)
Psychiatry	3 (1.2%)
Education	6 (2.4%)
Other	24 (9.8%)

	Mean	**Median**	**Std. Dev.**	**Range**
Age	38.7	36.8	11.9	21.0 to 70.6
Time in current position (months)	44.7	26.0	53.2	1.0 to 306.0
Time in mental health field (months)	111.4	72.0	98.7	1.0 to 420.0
Caseload size	29.2	19.0	44.8	5.0 to 600.0
Number of clients with SMI	23.9	17.0	23.0	5.0 to 200.0

Table 7. Staff Reporting of Trauma/PTSD History		
Trauma variables	**Mean**	**Std. Dev.**
% clients with SMI who also have trauma history	54.5	29.0
Of those with a trauma history,		
% discussed trauma	67.6	30.9
% documented trauma	79.2	27.8
% worked on trauma	54.7	34.4
% referred for treatment related to trauma	24.5	29.2
PTSD variables		
% clients with SMI who also have PTSD	26.8	25.6
Of those with PTSD,		
% discussed PTSD	68.6	35.6
% documented PTSD	53.1	39.2
% worked on PTSD	61.4	41.3
% referred for PTSD treatment	27.0	37.4

Table 8. Most Common Types of Trauma Experienced by Clients (Staff Report) (N=212)	
	% Staff Reporting Type of Trauma
Sexual Abuse/Assault (Adult or Unspecified)	76%
Physical Abuse/ Assault (Adult or Unspecified)	47%
Emotional / Verbal Abuse	22%
Sexual Abuse/Assault (Child)	16%
Spousal / Domestic Abuse	16%
Sudden Death of Loved One	16%
Accidents (e.g., car, work)	15%
Physical Abuse/ Assault (Child)	8%
Combat/ War	6%
Child Abuse (Type Unspecified)	5%
Psychiatric Hospitilization/ Treatment	5%
Witnessing Trauma to Another	4%
Natural Disasters (Fire, Tornadoes)	4%
Suicide attempt or self-inflicted injury	2%
Other	24%
Note: Participants responded to an open-ended question: "What are the most common traumatic events that your clients have experienced?" Responses were then coded by independent raters and tallied.	

Table 9. Types of Treatment (Staff Report) (N=140)	
	% Staff Reporting Type of Treatment Used
Supportive therapy/techniques	39%
Cognitive-behavioral therapy/techniques	32%
Symptom management/coping	21%
Referral	16%
Nonspecific therapy	16%
Medications	14%
Group therapy	14%
Psychoeducational	9%
Recreational therapies (play, music, art)	6%
Psychodynamic	4%
Other	9%
Note: Participants responded to an open-ended question: "If you are treating PTSD or other trauma-related problems, what kinds of interventions are you using?" Responses were then coded by independent raters and tallied.	

Table 10. Staff Report of Barriers to Diagnosing/Treating PTSD in People with SMI (N=204)	
Barrier	**% Staff Reporting**
SMI symptoms interfere	29%
Client discomfort or avoidance	20%
Staff lack knowledge/experience	18%
Cognitive impairment	14%
Client cannot communicate symptoms/trauma/events	9%
Trauma/PTSD less important than other problems	7%
Relationship/trust problems	6%
Staff discomfort or avoidance	5%
Discussing it may make clients worse	5%
System issues (assessment tools/space/visits lacking)	5%
Believe there are no effective treatments	3%
Other	16%
Note: Participants responded to an open-ended question: "What do you think are the greatest barriers to treating PTSD and other trauma-related problems in people with SMI?" Responses were then coded by independent raters and tallied.	

Appendix

Program Director Survey

Staff Survey